NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

F A C T S H E E T

(pursuant to NAC 445A.236)

Permittee Name: Refuse Inc.
100 Vassar Street
Reno, NV 89520

Permit Number: NEV92044

Description of Discharge

Location: Lockwood Landfill Bioremediation Facility
Storey County, Nevada

T19N, R21E, Sec. 22, 23, 26, 27
Latitude: 39° 29′ 40" N
Longitude: 119° 37′ 4" W

Characteristics: The pollutants of interest are petroleum hydrocarbons and sand/oil separator pumpage.

Parameters: 11,000 y^3 of soils in Cell 1
21,000 y^3 of soils in Cell 2
TPH in treated soil 100 mg/kg
TPH in reuse water 10 mg/l
Benzene-total 10 MG/Kg; Benzene-TCLP 0.5 mg/l in cell #1

General: The applicant has operated a bioremediation treatment facility for the removal of petroleum hydrocarbons from soils since 1992. The source of the material is typically surface and subsurface releases of hydrocarbons from accidents, underground storage tanks and above ground tanks. The applicant receives, stores and treats the soils on double lined, engineered bioremediaation cells with leak detection to ensure containment of all contaminated materials. Liquid collection for the containment cells are collection sumps. Liquids collected are disposed in an appropriate manner on site. All treated soil removed from the bioremediation cells is used for cover in the landfill, and is disposed according to Washoe County requirements.

The permittee has filed an application requesting that the permit be modified to allow for the increase in treatment depths to 3 feet based on a new bioremediation product. This would increase the volume in Cell 1 to 11,000 CY and Cell 2 to 21,000 CY. They have requested that they be allowed to accept soils contaminated with gasoline and to revise the Bioremediation TPH limit to 600 mg/kg in Cell 1. The 600 mg/kg limit was developed utilizing site characteristics and treatment process knowledge. All treated soil removed from the bioremediation cells is used for cover in the landfill, and is disposed according to Washoe County requirements.

Additionally, the Permittee has requested to temporarily be allowed to store up to 18,700 CY in Cell 1. The temporary increase in storage volume would be in effect for 6 months after which time the volume allowed in Cell 1 would return to 11,000 CY. This request is granted and will take effect upon publication of the public notice. Should the new bioremediation process be shown to be ineffective, the treatment capacity would be returned to the originally permitted volumes.

Receiving Water Characteristics: No discharges are allowed under the permit. If a discharge were to occur, the groundwaters of the State would be the receiving waters. The permit is for a Zero-Discharge standard of performance.

Procedures for Public Comment: The Notice of the Divisions's intent to issue a permit authorizing the facility to treat, manage and discharge pollutants in a Zero-discharge Facility to protect the groundwaters of the State of Nevada subject to the conditions contained within the permit, is being sent to the **Reno Gazette-Journal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing until March 16 which is a period of 30 days following the date of the publication of the public notice. The comment period can be extended at the discretion of the Administrator. All written comments received during the comment period will be retained and considered in the final determination.

A public hearing on the proposed determination can be requested by the applicant, any affected state, any affected interstate agency, or any interested agency, person or group of persons. Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings will be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Proposed Monitoring and Limitations :

Table I.1

PARAMETER	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS		
	30 - day Average	Daily Maximum	Sample Locations	Measurement Frequency	Sample Type
Outfall 001- Sand Oil Separator					
Flow-MGD	0.05	NA	Influent	Per pumpage load	Calculate
Flow-MGD	0.05	NA	Effluent from sand oil separator to bio cell	Per discharge	Calculate
Flow-MGD	Monitor and Report	NA	Decant water for dust suppression on-site	Per discharge	Calculate
Total Petroleum Hydrocarbons (full range)	NA	10 mg/l	Decant water	Per discharge	Discrete

PARAMETER	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS		
	30 - day Average	Daily Maximum	Sample Locations	Measurement Frequency	Sample Type
Outfall 002- Bioremediation Cell 1					
Cubic Yards of Waste Accepted	Monitor and Report		Incoming loads	per soil load daily	Discrete
Cubic Yards of Soil media Removed from containment pad	Monitor and Report		Loads of soil removed from pad	Each Event	Discrete
Maximum volume of soil treated in cell (y^3)	NA	11,000 CY	soils in cell	Each Event	Calculate
Total Quantity of Water added other than rainfall	Monitor and Report		Water Truck	Monthly	Calculate
Total Petroleum Hydrocarbons (TPH)in soil prior to removal from cell (8015 modified)	NA	600 mg/kg	100 cubic yard	Prior to removal from cell for each Each 100 Cubic yards of soil	Composite*
Benzene-Total	NA	10 mg/kg	Incoming loads from gasoline contaminated soils	Each generator as per Washoe County Waste Release Permits	Composite*
Benzene-TCLP	NA	0.5 mg/l			
Outfall 3 Bioremediation Cell 2					
Cubic yards of Waste Accepted	Monitor and Report		Incoming loads	Each Event	Discrete
Cubic Yards of Soil Media removed from Containment Pad	Monitor and Report		Loads of soil removed from cell	Each Event	Discrete
Maximum quantity of soil treated in cell (tons/$y^{3)}$	NA	21,000 y^3	soil in the cell	Monthly	Calculate
Total Quantity of Water Added other than Rainfall	Monitor and Report		Water Truck	Daily	Calculate

PARAMETER	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS		
	30 - day Average	Daily Maximum	Sample Locations	Measurement Frequency	Sample Type
Total Petroleum Hydrocarbons (TPH) in treated soil prior to removal from cell (Method 8015 modified)	NA	600 mg/kg	in cell after treatment 100 cubic yards	Prior to removal from cell for each 100 Cubic yards of soil	Composite*

Rationale for Permit Requirements"

The facility treats sand/oil separator pumpage and petroleum hydrocarbon and gasoline contaminated soil by bioremediation processes. Hydrocarbon compounds are defined as pollutants under the NRS. The facility has been designed and operated in such a way to ensure that no such pollutants are released into surrounding soils or to any waters of the State. Sampling of each waste stream is required at the point of generation and at the facility to ensure that hazardous wastes are not accepted at the bioremediation facility. Post treatment testing is required to ensure that the soils are being treated to meet permit limits.

Proposed Limitations and Special Conditions:

The treatment limit for TPH to be removed from the bioremediation cells has been revised to 600 mg/l. The site location, surface water management plan and hydrogeologic characteristics make any increased risk from this incrementally higher concentration of TPH soil being landfilled or used for cover is negligible.

The requested change has been reviewed to ensure that sufficient containment is available to ensure no run-off occurs from the treatment cells. Gasoline contaminated soil is being allowed to be accepted since bioremediation is a common treatment. The Division has required Refuse Inc. to revise the Operations and Management Plan to incorporate the new treatment depth and procedures if proven acceptable.

See Part I. A. 1 of permit and Table I.1 above.

Proposed Determination:

On the basis of preliminary review of the requirements of the Nevada Revised Statutes (NRS) as amended, and implementing regulations, the Administrator proposes to re-issue the permit to discharge, for a period of five (5) years, subject to certain effluent limitations and special conditions, and to immediately grant the temporary increase in the storage vollume allowed in cell 1.

Prepared by:

Icyl C. Mulligan, ES MS
February 2001

A:\REFUSE1.FAC